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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/624,705	07/21/2003	Mark Ronald Plesko	3382-65536	7062
26119 7590 12/12/2007 KLARQUIST SPARKMAN LLP 121 S.W. SALMON STREET SUITE 1600 PORTLAND, OR 97204			EXAMINER PHAM, CHRYSTINE	
			ART UNIT 2192	PAPER NUMBER
			MAIL DATE 12/12/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/624,705	Applicant(s) PLESKO ET AL.	
	Examiner Chrystine Pham	Art Unit 2192	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09/27/2007 & 05/02/2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>See Continuation Sheet</u> . | 6) <input type="checkbox"/> Other: _____ |

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :11/13/07;
9/27/07; 1/9/07; 7/30/04.

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 05/02/2007 has been entered.
2. This action is responsive to Amendments filed on 05/02/2007. Claims 1, 4, 20, 29-34, 36-37 have been amended. Claims 1 and 3-39 are presented for examination.

Response to Arguments

3. Applicant's arguments with respect to new claim limitation, "representing type information for a typed intermediate language ... wherein the type intermediate language is capable of representing a plurality of different programming languages ..." as recited in at least claims 1, 20, 29-36 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 3-39 rejected under 35 U.S.C. 102(e) as being anticipated by Gordon et al. (US 6,560,774 B1, "Gordon").

Claim 1

Gordon teaches a method of representing type information for a typed intermediate language (see at least *Type Definitions* col.16:58-col.17:51) via objects of classes in a class hierarchy (see at least *class hierarchies, subtype* col.16:33-41), wherein the class hierarchy comprises at least one class and a plurality of sub-classes for representing different type classifications (see at least *class hierarchies, subtype* col.16:33-41), the method comprising: instantiating one or more objects of one or more of the sub-classes of the hierarchy (see at least *class constructor, initialization* col.12:32-34; *object constructors* col.14:25-57; *object initialization* col.15:32-34; FIG.12 & associated text), wherein the one or more sub-classes represent classifications of types for the typed intermediate language (see at least *Type Definitions* col.16:58-col.17:51; 202 FIG.2 & associated text; 302 FIG.3 & associated text); and storing information in the one or more objects wherein the one or more objects (see at least *Field Definitions in Types, Method Definitions in Types* col.17:43-col.18:10) wherein the typed intermediate language is capable of representing a plurality of different programming languages (see

at least FIG.3 & associated text); and wherein the one or more objects represent type information for instructions in the typed intermediate language (see at least FIG.18 & associated text).

Claim 3

The rejection of base claim 1 is incorporated. Gordon further teaches wherein at least one of the objects comprises information for a size of a type represented by the object (see at least FIG.24 & associated text).

Claim 4

The rejection of base claim 1 is incorporated. Gordon further teaches wherein at least one of the one or more sub-classes inherits from an abstract type that wraps an externally defined type, the abstract type providing a mapping from the typed intermediate language to original source code (see at least *programs, objects, components, data structures, abstract data types* col.4:15-22; *class, abstract, superclass* col.17:9-14).

Claim 5

The rejection of base claim 1 is incorporated. Gordon further teaches wherein at least one of the one or more sub-classes represents container types (see at least FIG.15 & associated text; FIG.26 & associated text).

Claim 6

The rejection of base claim 1 is incorporated. Gordon further teaches wherein at least one of the one or more sub-classes represents pointer types (see at least FIG.11 & associated text; FIG.12 & associated text; *IL Instructions and Pointer Types* col.29:60-col.30:25).

Claim 7

The rejection of base claim 1 is incorporated. Gordon further teaches wherein at least one of the one or more sub-classes represents function types (see at least FIG.22 & associated text; *Method Definitions in Types* col.17:52-col.18:10).

Claim 8

The rejection of base claim 1 is incorporated. Gordon further teaches wherein at least one of the one or more sub-classes represents unmanaged array types (see at least FIG.26 & associated text; FIG.15 & associated text).

Claim 9

The rejection of base claim 1 is incorporated. Gordon further teaches wherein at least one of the one or more sub-classes represents class types (see at least *Type Definitions, type, class* col.16:58-65).

Claim 10

The rejection of base claim 1 is incorporated. Gordon further teaches wherein at least one of the one or more sub-classes represents managed array types (see at least FIG.26 & associated text; FIG.15 & associated text).

Claim 11

The rejection of base claim 1 is incorporated. Gordon further teaches wherein at least one of the one or more sub-classes represents struct types (see at least FIG.26 & associated text; FIG.15 & associated text).

Claim 12

The rejection of base claim 1 is incorporated. Gordon further teaches wherein at least one of the one or more sub-classes represents interface types (see at least *Type Definitions, interface* col.16:58-65).

Claim 13

The rejection of base claim 1 is incorporated. Gordon further teaches wherein at least one of the one or more sub-classes represents enumerated types (see at least *Type Definitions, enumeration* col.16:58-65).

Claim 14

The rejection of base claim 1 is incorporated. Gordon further teaches wherein at least one of the one or more sub-classes represents primitive types (see at least FIG.6 & associated text; FIG.27 & associated text).

Claim 15

The rejection of base claim 14 is incorporated. Gordon further teaches wherein at least one of the sub-classes representing primitive types represents the following types: int, float, and void (see at least FIG.6 & associated text; FIG.27 & associated text).

Claim 16

The rejection of base claim 14 is incorporated. Gordon further teaches wherein at least one of the sub-classes representing primitive types can represent an unknown type (see at least *unboxed* col.30:25-45).

Claim 17

The rejection of base claim 14 is incorporated. Gordon further teaches wherein at least one of the sub-classes representing primitive types is extensible to represent one or more additional primitive types (see at least FIG.6 & associated text; FIG.27 & associated text).

Claims 18-39


Claims recite limitations, which have been addressed in claims 1-17, therefore, are rejected for the same reasons as cited in claims 1-17.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chrystine Pham whose telephone number is 571-272-3702. The examiner can normally be reached on Mon-Fri, 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on 571-272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


TUAN DAM
SUPERVISORY PATENT EXAMINER